

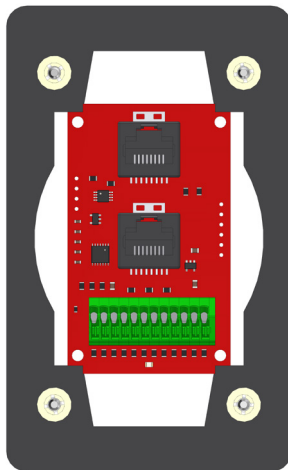
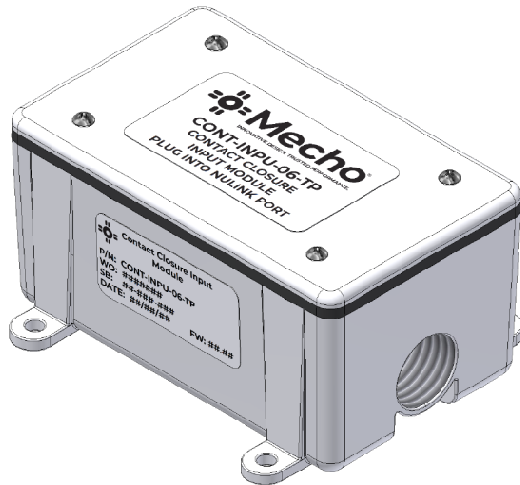
# Contact Closure Input Module

## Datasheet

### Description

The NuLEDs Input Module is a versatile and scalable solution designed to enhance the integration and control of multiple systems within a space. Featuring 6 dry contact closure inputs, this board enables seamless communication and interaction with a variety of devices, including sensors, switches, and third-party control systems. Its robust design ensures reliability, flexibility, and ease of use, making it an ideal choice for customized and automated control scenarios.

The Input Module delivers reliable performance and enhanced control capabilities, providing an adaptable and future-ready platform for managing integrated systems efficiently.



Stock#	Description
CONT-INPU-06-TP	Contact Closure Input Module

### Features

#### 1. Versatile Integration

- Interfaces with a wide range of systems using dry contact closures.
- Compatible with sensors, switches, relays, and third-party control systems.

#### 2. Expandable Capacity

- Six input channels for connecting multiple devices or sensors.
- Easily add additional boards for system expansion.

#### 3. Flexible Control

- Configurable inputs to trigger actions within the NuLEDs PoE lighting system or other integrated systems.
- Supports control of lighting, HVAC, security features, and more.

#### 4. Seamless Automation

- Automates responses based on external triggers, such as occupancy sensors or manual switches.
- Enables automatic lighting adjustments and custom scene activations.

#### 5. Enhanced Customization

- Tailor control scenarios to meet specific needs.
- Supports programming for unique interactions, including Demand Response triggers.

#### 6. Reliability and Compatibility

- Proven reliability of dry contact closures ensures seamless communication.
- Compatible with a broad range of devices and systems.

#### 7. Scalability and Future-Proof Design

- Modular design allows for easy expansion and adaptation to new technologies.
- Accommodates evolving system requirements over time.

#### 8. Plug-and-Play Installation

- Uses CAT cables for quick and easy setup
- Integrates seamlessly with NuLEDs PoE lighting systems, supporting ALS, PIR sensors, and wall controllers.

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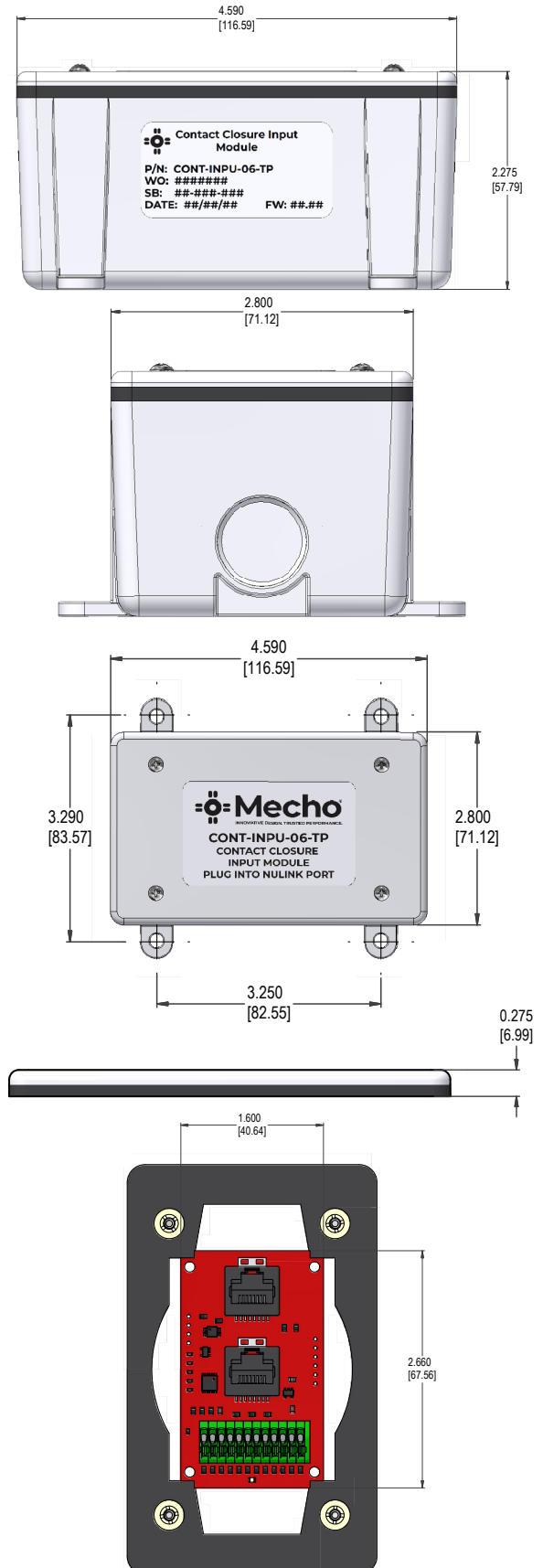
### Specifications

Equipment Kit	
Contact Closure Input Module, Installation Guide	
Hardware	
Standby Power	<1 Watt
Power Supply	SPICEbox™ NuLINK™ Bus
RJ45 Ports	2 Ports
Protocols	NuSPICE™
Wiring	Category 5e/6 Ethernet cable to EIP SPICEBox
Maximum Wiring Length	50' from SPICEbox™
Mechanical	
Dimensions (L X W X H)	6.4 in. x 5.08 in. x 1.48 in. (162.56 mm x 129.03 mm x 37.59 mm)
Weight	~0.48 lbs. (~0.21 kg)
Mounting	Housing Wall mounted with screws and wall anchors.
Dimming	Programmable with NuSPICE™
Environmental	
Operating Temperature	32° to 104°F (0° to 40°C) ambient
Humidity	10-80% Non-Condensing
Agency Listings and Compliance	
FCC Class A Compliant	
CE Compliant	
RoHS	

### Warning

- **Caution** - Observe precautions for handling electrostatic sensitive devices.
- Do not use outdoors.
- **Warning** - Risk of Electric Shock. Do not handle energized module with wet hands or when standing on wet or damp surfaces.
- Conforms to CE, FCC standards
- **Warranty** - Voided if device has been modified from its original configuration.

### Dimensions

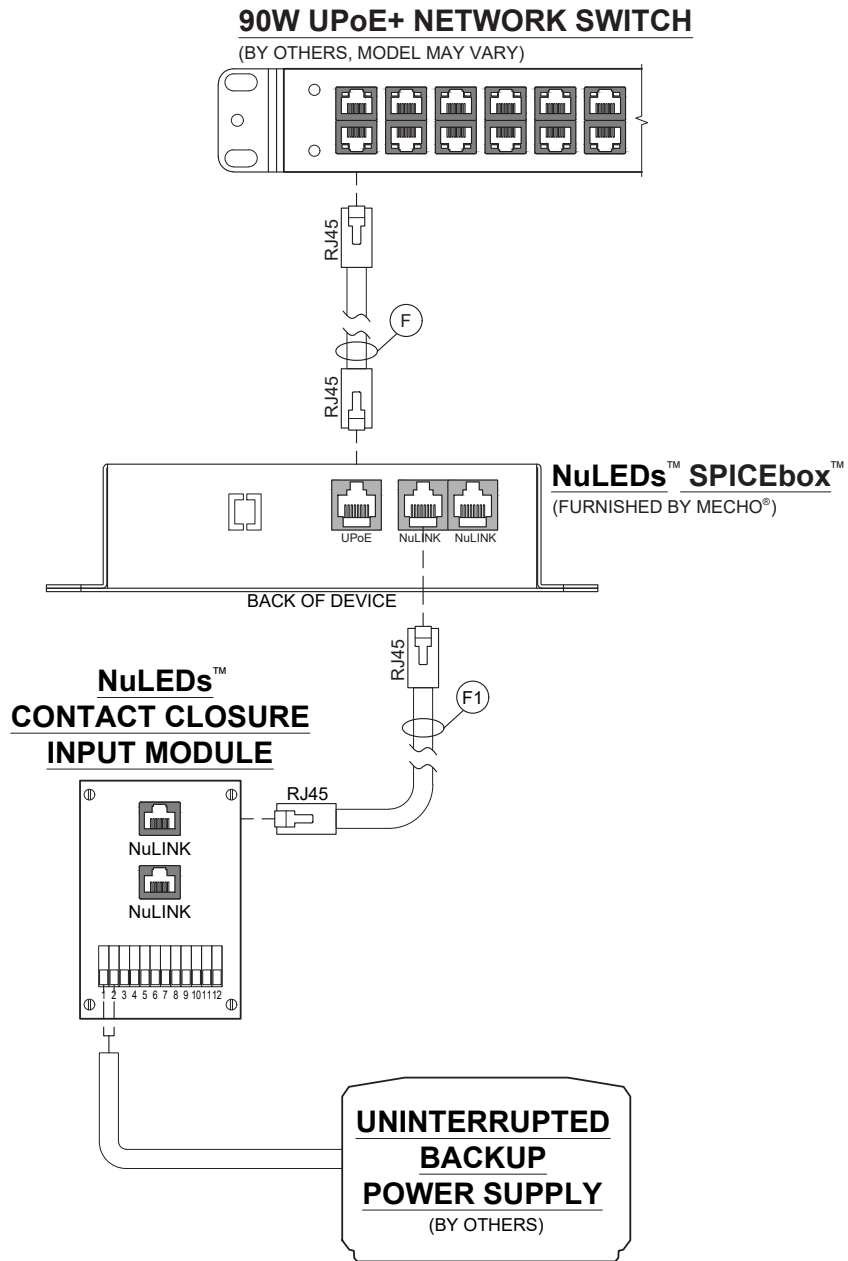


# Contact Closure Input Module

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### Contact Closure Input Module on UPoE & NuLink™ Network

**NOTE:** Only one Contact Closure Input Module can be connected per SPICEbox™.

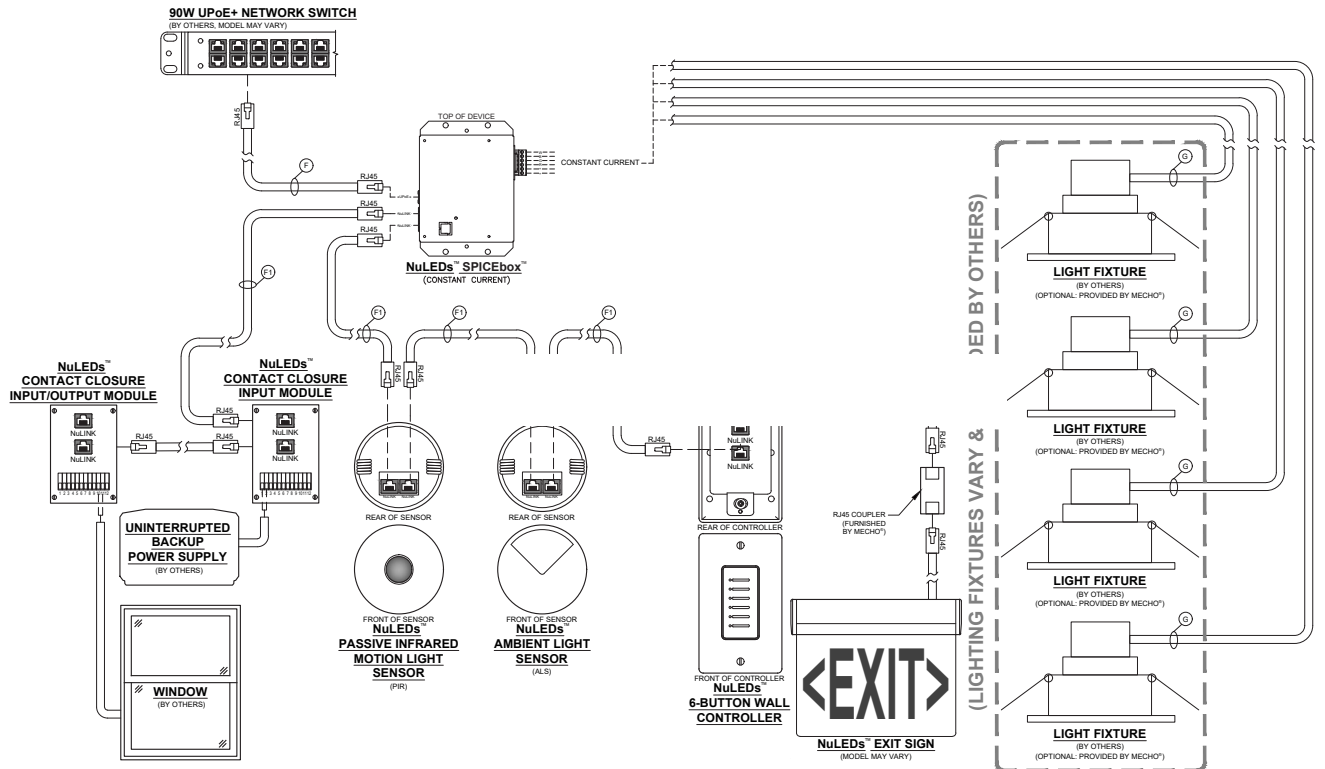


**NOTE:** Refer to page 7 for the Low Voltage Cable Legend and Crimping Instructions.

# Contact Closure Input Module

## Datasheet

### Point-to-Point Diagram



**NOTE:** Refer to page 7 for the Low Voltage Cable Legend and Crimping Instructions.

# Contact Closure Input Module

## Datasheet

### Cable Reference Drawing

### CABLE G REFERENCE DRAWING

Riser

Drawing not to scale

Plenum

Drawing not to scale

**SPECIFICATIONS:**

<p><b>CONDUCTOR COUNT:</b> 2 THRU 12 CONDUCTORS</p> <p><b>CONDUCTOR:</b> FULLY ANNEALED, SOLID OR STRANGED BARE COPPER</p> <p><b>AWG (mm):</b> 18 (1.16)</p> <p><b>INSULATION:</b> LOW SMOKE PVC</p> <p><b>INSULATION COLORS:</b> CONDUCTOR 1: BLACK CONDUCTOR 2: RED CONDUCTOR 3: WHITE CONDUCTOR 4: GREEN CONDUCTOR 5: BROWN CONDUCTOR 6: BLUE CONDUCTOR 7: ORANGE CONDUCTOR 8: YELLOW CONDUCTOR 9: VIOLET CONDUCTOR 10: GRAY CONDUCTOR 11: PINK CONDUCTOR 12: TAN</p> <p><b>JACKET:</b> RISER: GRAY, FLAME RETARDANT (FR) PVC PLENUM: WHITE, LOW SMOKE PVC</p> <p><b>PACKAGE:</b> BLACK, RIBBED, PLASTIC RECYCLABLE SPOOL, REEL-IN-A-BOX OR WOOD REEL</p>	<p><b>PERFORMANCE COMPLIANCE:</b> NEC ARTICLE 725 NEC ARTICLE 800 NEC ARTICLE 760 UL®13 CL3R/CL3P UL 444 CMR/CMP* UL 1424 FPLR/FPLP UL 1666 NFPA 262 CALIFORNIA STATE FIRE MARSHALL RoHS-COMPLIANT/RoHS 2-COMPLIANT</p> <p><b>NRTL PROGRAMS:</b> UL LISTED CL3R, CMR, FPLR UL LISTEN CL3P, CMP, FPLP</p>
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**Part Numbers and Physical Characteristics:**

Listing	Part Number <sup>1</sup>	Conductor Count	AWG (mm)	Conductor Type	Jacket Color <sup>2</sup>	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)
CL3R/CMR/FPLR	2F-C1x-31	2	18 (1.16)	7 x 26 AWG	GRAY	0.16 (4.1)	17 (25)
CL3R/CMR/FPLR	2F-C2x-31	3	18 (1.16)	7 x 26 AWG	GRAY	0.17 (4.3)	22 (9)
CL3R/CMR/FPLR	2F-C3x-31	4	18 (1.16)	7 x 26 AWG	GRAY	0.19 (4.8)	30 (45)
CL3R/CMR/FPLR	2F-C4x-31	6	18 (1.16)	7 x 26 AWG	GRAY	0.23 (5.8)	43 (64)
CL3R/CMR/FPLR	2F-C5x-31	8	18 (1.16)	7 x 26 AWG	GRAY	0.25 (6.4)	56 (83)
CL3R/CMR/FPLR	2F-C7x-31	12	18 (1.16)	7 x 26 AWG	GRAY	0.30 (7.6)	83 (124)
CL3P/CMP/FPLP	2F-C1x-43	2	18 (1.16)	7 x 26 AWG	WHITE	0.16 (4.1)	17 (25)
CL3P/CMP/FPLP	2F-C2x-43	3	18 (1.16)	7 x 26 AWG	WHITE	0.17 (4.3)	22 (9)
CL3P/CMP/FPLP	2F-C3x-43	4	18 (1.16)	7 x 26 AWG	WHITE	0.19 (4.8)	30 (45)
CL3P/CMP/FPLP	2F-C4x-43	6	18 (1.16)	7 x 26 AWG	WHITE	0.23 (5.8)	44 (65)
CL3P/CMP/FPLP	2F-C5x-43	8	18 (1.16)	7 x 26 AWG	WHITE	0.25 (6.4)	57 (85)
CL3P/CMP/FPLP	2F-C7x-43	12	18 (1.16)	7 x 26 AWG	WHITE	0.30 (7.6)	85 (126)

**Packaging Options:**

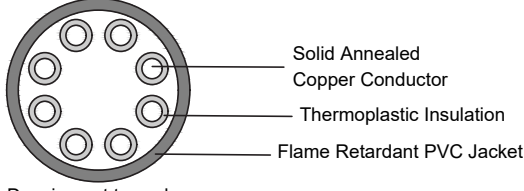
	Plastic Spool		Reel-in-a-Box		Wood Reel	Shrink Wrap	
	1,000'	500'	1,000'	500'	1,000'	250'	500'
<sup>1</sup> Replace "x" with:	2	3	4	5	6	7	8

# Contact Closure Input Module

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### Cable Reference Drawing

### CABLE F REFERENCE DRAWING



Solid Annealed  
Copper Conductor

Thermoplastic Insulation

Flame Retardant PVC Jacket

Drawing not to scale

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**SUPERIOR ESSEX (www.superioressex.com)**

**PART No. PW52-H46-X5 (NON-PLENUM) & PW52-H46-X8 (PLENUM)**

**SPECIFICATIONS (SOLID): CATEGORY 5E+**

PAIR COUNT: 4

CONDUCTOR: SOLID ANNEALED COPPER

AWG (mm): 22 (0.51)

INSULATION: CMR: POLYOLEFIN  
CMP: FEP

INSULATION COLORS: PAIR 1: COLORTIP LIGHT BLUE, BLUE  
PAIR 2: COLORTIP LIGHT ORANGE, ORANGE  
PAIR 3: COLORTIP LIGHT GREEN, GREEN  
PAIR 4: COLORTIP LIGHT BROWN, BROWN

JACKET: CMR: FLAME RETARDANT (FR) PVC  
CMP: FR, LOW SMOKE PVC

CHARACTERISTIC IMPEDANCE Ohms: 100 ± 15

NOMINAL VELOCITY OF PROPAGATION %: CMR: 71  
CMP: 74

PERFORMANCE COMPLIANCE: UL 444  
CSA C22.2 No. 214-08  
UL 1666  
NFPA 262  
ANSI/TIA-568-C.2  
ANSI/ICEA S-90-661-2012  
Article 800, NEC (NFPA 70)  
HDBaseT Class A and B

NRTL PROGRAMS: UL Verified CAT 5e  
UL, c(UL) Listed CMR  
UL, c(UL) Listed CMP  
HDBaseT Certified

SUSTAINABILITY: UL Certified EPD  
HPD  
USGBC® Member  
RoHS-compliant/RoHS 2-compliant  
REACH-compliant

Temperature cable rating: 75°C for CMR and 90°C for CMP

**PART NUMBERS AND PHYSICAL CHARACTERISTICS**

Listing	Part Number <sup>1</sup>	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)	Package	Packages per Pallet
CMR	PW52-H46-x5	0.23 (4.6)	28 (25)	1,000 ft BrakeBox®	12
CMR	PW52-H72-x5	0.23 (4.6)	28 (25)	1,000 ft Plywood Reel	16
CMP	PW52-H46-x8	0.23 (4.8)	37 (28)	1,000 ft BrakeBox	12
CMP	PW52-H72-x8	0.23 (4.8)	37 (28)	1,000 ft Plywood Reel	16

**JACKET COLORS**

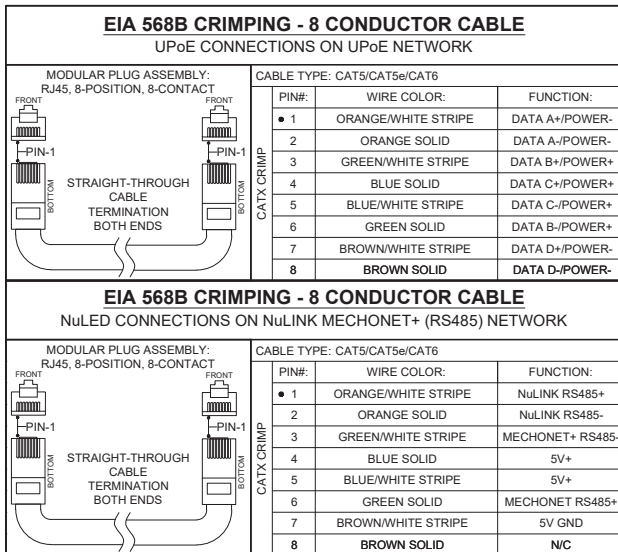
'Replace "x" with:	Blue = 2	Gray = 3	White = 4	Green = 5
Yellow = 6	Purple = 7	Red = 9	Black = E	

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### Low Voltage Cable Legend and Crimping Instructions

<b>LOW VOLTAGE CABLE LEGEND - EIA568B</b>	
<b>NOTES:</b> 1. PARALLEL WIRING TO NEXT DEVICE PER BRANCH CIRCUIT CAPACITY. ALL CONNECTION MUST MEET NATIONAL AND LOCAL CODES AND REGULATIONS. 2. ADDRESS SCHEDULES REQUIRED. 3. MAXIMUM VOLTAGE FOR ALL UNMARKED CABLE IS 43.5 VDC. 4. LOW VOLTAGE CABLES SHOULD NOT BE ROUTED NEAR POWER LINES OR ELECTRICAL DEVICES SUCH AS LIGHTING BALLASTS, DIMMERS AND LED DRIVERS THAT MAY EXPOSE THE SYSTEM TO EXCESSIVE ELECTRICAL NOISE.	
(F)	<b>CAT5E+ - CABLE FOR UPOE NETWORK WIRING CONNECTIONS:</b> <b>SPECIFICATION:</b> 22AWG 4UTP (8-CONDUCTOR SOLID UNSHIELDED TWISTED PAIR) <b>TERMINATION:</b> RJ-45 MODULAR PLUG CRIMPED (EIA568B) ON BOTH ENDS <b>RECOMMENDED:</b> SUPERIOR ESSEX (WWW.SUPERIORESSEX.COM) PART NO. PW52-H46-X5 (NON-PLENUM) & PW52-H46-X8 (PLENUM) OR COMPATIBLE CABLE  <b>DISTANCE LIMITATION: 328'. MAX. NODES: 1</b> SEE "CABLE F" REFERENCE DRAWING" FOR DETAILED SPECIFICATION. (FURNISHED & INSTALLED BY OTHERS)
(F1)	<b>CAT5E+ - CABLE FOR NULINK NETWORK WIRING CONNECTIONS:</b> <b>SPECIFICATION:</b> 22AWG 4UTP (8-CONDUCTOR SOLID UNSHIELDED TWISTED PAIR) <b>TERMINATION:</b> RJ-45 MODULAR PLUG CRIMPED (EIA568B) ON BOTH ENDS <b>RECOMMENDED:</b> SUPERIOR ESSEX (WWW.SUPERIORESSEX.COM) PART NO. PW52-H46-X5 (NON-PLENUM) & PW52-H46-X8 (PLENUM) OR COMPATIBLE CABLE  <b>DISTANCE LIMITATION: 50'. MAX. EIPS: 15</b> SEE CABLE "F" REFERENCE DRAWING FOR DETAILED SPECIFICATION. (FURNISHED & INSTALLED BY OTHERS)
(G)	<b>CABLE FOR SPICEBOX TO LIGHT (LOAD) FIXTURE WIRING CONNECTIONS:</b> <b>SPECIFICATION:</b> 2 TO 12-CONDUCTOR, (18AWG UNSHIELDED) <b>RECOMMENDED:</b> SUPERIOR ESSEX (WWW.SUPERIORESSEX.COM 1-800-551-8948) LISTING NO. CL3R/CMR/FPLR (NON-PLENUM), & CL3P/CMP/FPLP (PLENUM)  <b>DISTANCE LIMITATION: VARIES PER LOAD. MAX. LOADS: VARIES BY WATTS</b> SEE CABLE "G" REFERENCE DRAWING FOR DETAILED SPECIFICATION. (FURNISHED & INSTALLED BY OTHERS)



#### Warranty

Mecho's warranty ensures its products against defects in materials and workmanship for up to 25 years. The warranty timeline shall vary for different products. For complete warranty information, please visit <https://www.mechoshade.com/warranty> or contact your Mecho® Representative.

#### Technical support

**Mecho**  
**T:** +1 (800) 327-9798 (Follow prompts for Mecho® & Tech Support)  
**E:** techsupport@mechoshade.com  
**W:** www.mechoshade.com

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